

## BAB V

### KESIMPULAN DAN SARAN

#### 6.1 Kesimpulan

Dari penelitian ini diperoleh kesimpulan yaitu :

1. Penggunaan *wavelet orthogonal* sebagai pengolahan awal menunjukkan bahwa wavelet Haar menghasilkan citra yang memiliki kemiripan dengan citra asli, hal ini dilihat dari hasil perhitungan PSNR.
2. Prediksi sebaran titik api dengan menggunakan *wavelet orthogonal* dan *backpropagation* menunjukkan hasil keakuratan yang baik yaitu 90%.

#### 6.2 Saran

1. Perlu dilakukan penelitian dengan citra yang telah diberi derau atau noise untuk menguji hasil keakuratan pengenalan sebaran titik api.
2. Mencoba penerapan algoritma wavelet orthogonal dan *backpropagation* untuk objek lain sebagai perbandingan.
3. Penggunaan data citra satelit kebakaran hutan yang lebih banyak untuk tahapan pembelajaran serta pelatihan.
4. Pengembangan penelitian agar proses pengenalan sebaran titik api dapat dilakukan secara *real-time*.

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**Lampiran Tabel 2.2 Spesifikasi Sensor Aqua/Terra- MODIS**

<b>Kegunaan</b>	<b>Band(nm)</b>	<b>Bandwidth(<math>\mu\text{m}</math>)</b>	<b>Spektrum Cahaya (<math>\text{W/m}^2 \cdot \mu\text{m-sr}</math>)</b>
<b>Land/Cloud/Aerosols Boundaries</b>	1	620 – 670	21.8
	2	841 – 876	24.7
<b>Land/Cloud/Aerosols Properties</b>	3	459 – 479	35.3
	4	545 – 565	29.0
	5	1230 – 1250	5.4
	6	1628 – 1652	7.3
	7	2105 – 2155	1.0
<b>Ocean Color/ Phytoplankton/ Biogeochemistry</b>	8	405 - 420	44.9
	9	438 - 448	41.9
	10	483 - 493	32.1
	11	526 - 536	27.9
	12	546 - 556	21.0
	13	662 - 672	9.5
	14	673 - 683	8.7
	15	743 - 753	10.2
	16	862 - 877	6.2
<b>Atmospheric Water Vapor</b>	17	890 - 920	10.0
	18	931 - 941	3.6
	19	915 - 965	15.0



<b>Kegunaan</b>	<b>Band(nm)</b>	<b>Bandwidth(<math>\mu\text{m}</math>)</b>	<b>Spektrum Cahaya (<math>\text{W}/\text{m}^2 - \mu\text{m-sr}</math>)</b>
<b>Surface/Cloud Temperature</b>	20	3.660 - 3.840	0.45(300K)
	21	3.929 - 3.989	2.38(335K)
	22	3.929 - 3.989	0.67(300K)
	23	4.020 - 4.080	0.79(300K)
<b>Atmospheric Temperature</b>	24	4.433 - 4.498	0.17(250K)
	25	4.482 - 4.549	0.59(275K)
<b>Cirrus Clouds Water Vapor</b>	26	1.360 - 1.390	6.00
	27	6.535 - 6.895	1.16(240K)
	28	7.175 - 7.475	2.18(250K)
<b>Cloud Properties</b>	29	8.400 - 8.700	9.58(300K)
<b>Ozone</b>	30	9.580 - 9.880	3.69(250K)
<b>Surface/Cloud Temperature</b>	31	10.780 - 11.280	9.55(300K)
	32	11.770 - 12.270	8.94(300K)
<b>Cloud Top Altitude</b>	33	13.185 - 13.485	4.52(260K)
	34	13.485 - 13.785	3.76(250K)
	35	13.785 - 14.085	3.11(240K)
	36	14.085 - 14.385	2.08(220K)

Sumber : <https://modis.gsfc.nasa.gov/about/specifications.php>